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EXAMINER

CHANG, JON CARLTON

ART UNIT

PAPER NUMBER

2623

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/765,772

Applicant(s)

GOODMAN ET AL.

Examiner

Jon Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

***Claim Rejections - 35 USC § 112***

1. Claims 8-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites, "said whole hidden handwritten word." Clear antecedent basis for this limitation does not exist within the claim.

Claim 9 depends from claim 8.

***Claim Objections***

2. Claim 22 is objected to because of the following informalities: in claim 22, "information's" should be corrected . Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,557,689 to Huttenlocher et al. (hereinafter "Huttenlocher").

As to claim 1, Huttenlocher discloses a method of recognizing handwriting, comprising:

obtaining a sample of text (Fig.1B, element 10);

segmenting said sample into separate handwritten words (Fig.1B, element 22; Fig.10); and

attempting to recognize a whole handwritten word without attempting to recognizing any individual letter of the whole handwritten word (column 5, line 65 to line 2).

Huttenlocher does not explicitly show the text is handwritten. However, the Examiner takes Official Notice that handwritten text is well known, and recognition of handwritten text is also well known. It would have been obvious to employ Huttenlocher's method to handwritten words, especially in view of the fact that as background, the patent refers to several prior art methods which operate on handwritten words (e.g., column 4, lines 16-17).

As to claim 2, Huttenlocher further discloses determining a silhouette of the word, and matching said silhouette to one of a plurality of reference silhouettes (Fig.1B, elements 24, 28 and 26; Figs. 18A, 18B).

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As to claim 3, Huttenlocher discloses determining features of the silhouette (column 6, lines 23-26; column 6, lines 41-50).

As to claim 4, Huttenlocher further discloses that the features of the silhouette include high-profile features, and low profile features, and locations of said high-profile features and said low-profile features (Figs.18A, and 18B).

As to claim 5, Huttenlocher further discloses determining prime features (e.g., each vertical arrow in Fig.18B).

As to claim 6, Huttenlocher further discloses super enclosing said prime features to form hybrid features (e.g., the combination of all the vertical arrows in Fig.18B, or the curves in Fig.18C).

As to claim 7, Huttenlocher further discloses sorting said features by first syllable blends (note Fig.18A).

As to claim 8, Huttenlocher discloses that the attempting comprises categorizing said whole handwritten word according to its overall silhouette (column 5, line 65 to column 6, line 2; Fig.1B, elements 24, 28 and 26).

As to claim 9, Huttenlocher further discloses that the categorizing comprises categorizing positions of features in said handwritten word (in Fig.18A, positions are determined along the horizontal axis, for example).

As to claims 10-12, Huttenlocher does not mention family names. However, the invention recognizes words, regardless of their use. Since family names are comprised of a word or words, it would have been obvious to utilize Huttenlocher's method to recognize family names.

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As to claim 13, Huttenlocher further discloses that the silhouette information includes information about the presence of high and low parts in the written word and the position of those high and low parts (see Fig.18B).

As to claim 14, Huttenlocher further discloses that the silhouette information includes first syllable blends in the word (Figs.18B-18B).

As to claim 15, Huttenlocher discloses a method comprising:

analysing a sample of handwriting by analysing a whole word of said sample at any one time, said analysing comprising forming information indicative of a silhouette of said whole word, and comparing said information with a database of information about other silhouettes (Fig.1B, elements 24, 28 and 26; column 5, line 65 to column 6, line 2).

As to claim 16, Huttenlocher further discloses that the database of information comprises a database of information obtained from a list of possible words (column 10, lines 32-34).

With regard to claim 18, see remarks above for claim 13.

With regard to claims 19-20, see remarks above for claim 7.

With regard to claim 21, see remarks above for claims 5-6.

With regard to claims 22-23, Huttenlocher discloses that each of a plurality of silhouette information is provided with or assigned a number (column 17, lines 16-17).

***References Cited***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 4,905,296 to Nishihara discloses a system for shape recognition which derives primitive shape elements which are used as a basis for building a description for shape recognition. the geometric arrangement of elements may be used as the basis for describing shape characteristics.

U.S Patent 5,524,066 to Kaplan et al. discloses text recognition by predictive composed shapes.

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**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon Chang whose telephone number is (703)305-8439.

The examiner can normally be reached on M-F 8:00 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703)308-6604. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9314 for regular communications and (703)872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

  
Jon Chang  
Primary Examiner  
Art Unit 2623

Jon Chang  
August 23, 2002